

CLAIMS

1. An electronic ink stack (70), comprising:
 - a front electrode (74);
 - a back electrode (71, 78);
 - an layer (73) disposed between said front electrode (74) and said back electrode (71, 78); and
 - at least one location code (75, 77, 79) embedded within at least one of said front electrode (74) and said back electrode (71, 78).
2. The electronic ink stack (70) of claim 1,
wherein said electronic ink layer (73) includes an electrophoretic ink.
3. The electronic ink stack (70) of claim 1,
wherein a first location code is a hole (79) extending through said back electrode (78).
4. The electronic ink stack (70) of claim 1,
wherein a first location code is a hole (79) extending through said front electrode (74).
5. The electronic ink stack (70) of claim 1,
wherein an application of a coding voltage pulse between said front electrode (74) and said back electrode (71, 78) produces a coded image for revealing at least one location code (75, 77, 79).
6. The electronic ink stack (70) of claim 1,
wherein an implementation of a voltage amplitude modulation technique facilitates a sequential production of a blank image (90, 91), a coded image (92, 93) and a pictorial E-ink image (94) in said electronic ink layer (73).

7. The electronic ink stack (70) of claim 1,
wherein an implementation of a voltage slope modulation technique facilitates a sequential production of a blank image (90, 91), a coded image (92, 93) and a pictorial image (94) in said electronic ink layer (73).

8. The electronic ink stack (70) of claim 1, further comprising:
a photoconductor layer (72, 76) disposed between said front electrode (74) and said back electrode (71, 78).

9. The electronic ink stack (70) of claim 8,
wherein said least one location code (75, 77, 79) is embedded within at least one of said front electrode (74), said back electrode (71, 78) and said photoconductor layer (72, 76).

10. The electronic ink stack (70) of claim 9,
wherein a first location code is an insulation pad (75) disposed within said photoconductor layer (72, 76).

11. The electronic ink stack (70) of claim 9,
wherein a first location code is an indentation (77) in said photoconductor layer (72, 76).

12. An electronic ink system (20), comprising:
an electronic ink stack (70) including
a front electrode (74),
a back electrode (71, 78),
an electronic ink layer (73) disposed between said front electrode (74) and said back electrode (71, 78), and
at least one location code (75, 77, 79) embedded within at least one of said front electrode (74) and said back electrode (71, 78); and
a controllable voltage source (60) operable to apply voltages between said front electrode (74) and said back electrode (71, 78).

13. The electronic ink system (20) of claim 12,
wherein said electronic ink layer (73) includes an electrophoretic ink.

14. The electronic ink system (20) of claim 12,
wherein a first location code is a hole (79) extending through said back electrode
(78).

15. The electronic ink system (20) of claim 12,
wherein a first location code is a hole (79) extending through said front electrode
(74).

16. The electronic ink system (20) of claim 12,
wherein said controllable voltage source (60) is operable to apply a coding voltage
pulse between said front electrode (74) and said back electrode (71, 78) to thereby produce a coded
image for revealing the at least one location code (75, 77, 79).

17. The electronic ink system (20) of claim 12,
wherein said controllable voltage source (60) is operable to implement a voltage
amplitude modulation technique to thereby facilitate a sequential production of a blank image (90,
91), a coded image (92, 93) and a pictorial image (94) in said electronic ink layer (73).

18. The electronic ink system (20) of claim 17, further comprising:
an electronic brush (50) operable in conjunction with said controllable voltage source
(60) to produce the pictorial mage in said electronic ink layer (73) as a function of the at least one
location code (75, 77, 79).

19. The electronic ink system (20) of claim 12,
wherein said controllable voltage source (60) is operable to implement a voltage slope
modulation technique to thereby facilitate a sequential production of a blank image (90, 91), a coded
image (92, 93) and a pictorial image (94) in said electronic ink layer (73).

20. The electronic ink system (20) of claim 19, further comprising:
an electronic brush (50) operable in conjunction with said controllable voltage source (60) to produce the pictorial mage in said electronic ink layer (73) as a function of the at least one location code (75, 77, 79).
21. The electronic ink system (20) of claim 12, wherein said electronic ink stack (70) further includes:
a photoconductor layer (72, 76) disposed between said front electrode (74) and said back electrode (71, 78).
22. The electronic ink system (20) of claim 21,
wherein said least one location code (75, 77, 79) is embedded within at least one of said front electrode (74), said back electrode (71, 78) and said photoconductor layer (72, 76).
23. The electronic ink system (20) of claim 22,
wherein a first location code is an insulation pad (75) disposed within said photoconductor layer (72, 76).
24. The electronic ink system (20) of claim 23,
wherein a first location code is (77) in said photoconductor layer (72, 76).